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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,642	09/19/2003	Shunpei Yamazaki	0553-0378	5083

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EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,642

Applicant(s)

YAMAZAKI ET AL.

Examiner

Karla Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 19-24 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 19-24 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>0606</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-6, 19-24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,696,096 to Tsukabi et al. in view of U.S. Patent Publication No. 2003/0015140 A1 to Van Slyke et al., U.S. Patent No. 6,294,892 to Utsugi et al. and EP Patent No. 0 865 229 B1 to Matsuura et al.

4. Tsubaki et al. discloses the invention substantially as claimed and comprising: a fabrication system comprising: a film formation chamber (Figure 8, 1); an installation chamber (11) connected with the film formation chamber; an evaporation source holder (24); a moving mechanism for moving the evaporation source holder (60 and 61); wherein said film formation chamber is connected with a vacuum exhaust treatment chamber (20) for allowing the inside of the film formation chamber to be in a vacuum state; wherein said evaporation source holder has containers (grooves in 24 containing evaporation material), said containers being arranged in a longitudinal direction of said evaporation source holder, in each container an evaporation material is contained, and a heater for heating said containers (Figure 12, 65-67; column 15, rows 57-64). In Tsubaki et al., the installation further comprises a transport (54 and

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55) for transporting said containers into said evaporation source holders in said film formation chamber and its own vacuum exhaust treatment chamber (20).

5. However, Tsubaki et al. fail to teach the system comprising a load chamber, a transport chamber and a plurality of film formation chambers.

6. Van Slyke et al. disclose a cluster tool comprising a load chamber (Figure 2, 110), a transport chamber (102) and a plurality of film formation chambers (130, 140, 150 and 160) for manufacturing light-emitting devices for the purpose of manufacturing a relatively large number of devices using automated or robotic means for transporting or transferring substrates or structures among a plurality of stations (paragraphs 57 and 58).

7. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a cluster tool comprising load chamber, a transport chamber and a plurality of film formation chambers for manufacturing light-emitting devices in Tsubaki et al. in order to manufacture a relatively large number of devices using automated or robotic means for transporting or transferring substrates or structures among a plurality of stations as taught by Van Slyke et al.

8. Tsubaki et al. further fail to teach a moving mechanism for moving an evaporation source during evaporation.

9. Van Slyke et al. teach that relative motion between a source and substrate during deposition ensures that a relatively uniform layer is deposited (abstract).

10. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided moving mechanism for providing relative motion between the evaporation source and the substrate in Tsubaki et al. in order to ensure deposition of a relatively uniform layer as taught by Van Slyke et al.

11. Tsubaki et al. and Van Slyke et al. disclose the invention substantially as claimed and as described above.

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12. However, Tsubaki et al. and Van Slyke et al. fail to teach said film formation chamber comprising an aligner for allowing positions of a mask and a substrate to be in registry with each other.

13. Utsugi et al. teach the use of an aligner for allowing positions of a mask and a substrate to be in registry with each other for the purpose of developing a manufacturing method having sufficient accuracy in order to finely separate a luminescent layer formed by excessively thin organic vaporized film into a sub-pixel of high accuracy of several tens μm (column 2, rows 22-27 and column 5, rows 30-34). The aligner means comprises a stopper/magnet (for stopping misalignment)(column 3, rows 36-41 and column 6, rows 3-6), and a CCD camera for monitoring alignment (column 5, row 34).

14. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided an aligner in Tsubaki et al. in order to allow for positioning of a mask and a substrate to be in registry with each other and in order to develop a manufacturing method having sufficient accuracy in order to finely separate a luminescent layer formed by excessively thin organic vaporized film into a sub-pixel of high accuracy of several tens μm as taught by Utsugi et al.

15. Tsubaki et al., Van Slyke et al. and Utsugi et al. disclose the invention substantially as claimed and as described above.

16. However, Tsubaki et al., Van Slyke et al. and Utsugi et al. fail to teach a heater provided in the installation chamber.

17. Matsuura et al. teach preheating and degassing a source material using a heater at a position that is not a processing position (i.e. a different chamber) prior to locating a source material at the processing position in order to remove impurities and to establish a stabilized vaporizing condition (paragraphs 24-25 and 39).

18. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a heater for degassing and preheating a source material at a position that is not a processing position (i.e. a different chamber) prior to locating a source material at the processing position in Tsubaki et al., Van Slyke et al. and Utsugi et al. in order to remove impurities and to establish a stabilized vaporizing condition as taught by Matsuura et al.

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19. With respect to claims 2 and 20, which are drawn to a substrate that may be worked upon by the claimed apparatus, the courts have ruled that inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. In re Young, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)).

20. With respect to claims 3 and 21, it is taught in Utsugi et al. that said substrate holding device and mask are bonded together using magnetic suction means (column 3, rows 36-41).

21. With respect to claims 4 and 22, Tsubaki et al. teach relative motion of the sources with relative to the substrate in order to effect an even deposition (abstract).

22. With respect to claims 5 and 23, said containers are arranged at equal intervals in each of said evaporation source holders of Tsubaki et al.

23. With respect to claims 6 and 24, the evaporation source holder (see Figure 10 of Tsubaki et al.) is rectangular.

24. With respect to claims 19 and 29, the aligner comprises a CCD camera for monitoring alignment (column 5, row 34).

Allowable Subject Matter

25. The indicated allowability of claims 1-6, 19-24 and 29 is withdrawn in view of the newly discovered reference(s) to Matusuura, which was included in an IDS filed 26 June 2006. Rejections based on the newly cited reference(s) are above.

Conclusion

26. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 26 June 2006 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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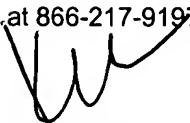
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free).



Karla Moore
Primary Examiner
Art Unit 1763
14 September 2004